

**University of Utah
Warnock Engineering Building
DFCM Project No. 01284750**

**Architect Selection
Addendum #1
February 12, 2004**

Minutes of the mandatory meeting held on February 11, 2004.

Attendance:

JoAnn Lighty Associate Dean College of Engineering
Marilyn Davies Development Director College of Engineering
Greg Jones SCI representative College of Engineering
Kari Astle Facilities Planning
Brad Bona Facilities Design and Construction
Blake Court DFCM

The procurement process contained in the Solicitation was reviewed. The best way to request information is via e-mail to Blake Court.

The selection committee will be comprised of the following:

Darren Mansell State Building Board
Keith Stepan Director, DFCM
John Huish Director, Campus Design and Construction
Dan Losee Losee Architects
Paul Tanner ABCO Construction

Please do not contact the selection committee to discuss this project. Any attempt to influence the selection process prior to the presentations may result in disqualification.

All addendums will be posted on the DFCM web site for this project. It is the responsibility of submitting firms to check the web site and comply with the posted addendums.

AJC Architects have done the programming for the building. It is in final review by the university. The draft executive summary is attached to this addendum for your information.

Also attached is the site plan of the new building location. The site is east of the EMCB building in the A parking lot. The EMCB is building 63 on the site plan.

Date changes: The last day to submit questions is changed to February 18, 2004 by 5PM. The final addendum will be posted on the DFCM web site by 5PM on February 19, 2004. All other dates and times remain the same.

It is intended that the construction will be via a CM/GC method. The CM/GC will be selected by the first of April. By mid April it is intended to have a commissioning agent also selected for this project.

The anticipated schedule is the completion of the design by February/March of 2005 with a completion of construction by mid summer 2006 so that the building can be in use for Fall semester 2006.

The architect management plan should indicate their ability to conform to or better this time frame along with the ability to provide preliminary bid packages for early utility and site work.

The university has indicated a preference that this building be LEED certified. If the building is LEED certified and to what level will be discussed as the final contract is negotiated. Please include in your management plan and qualification statement any past experience with LEED certified buildings.

The space groups and the vision of the building were then discussed in depth. The desire that this building be the heart of the college, the front door to visitors and a space that can be utilized for the next 40 years was communicated.

Attachments: Site plan and draft of the program executive summary.

End of Addendum 1

List of Attendees at the Mandatory Pre-Submittal Meeting
University of Utah – Warnock Engineering Building – Design Selection
DFCM Project No. 01284750
11 February 2004

Firm Name	Contact	Telephone	Fax	E-Mail
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1.0 EXECUTIVE SUMMARY

- 1.1 UNIVERSITY OF UTAH COLLEGE OF ENGINEERING MISSION STATEMENT**
- 1.2 SUMMARY OF EXISTING FACILITIES AND PROGRAM**
- 1.3 SCIENTIFIC COMPUTING AND IMAGING INSTITUTE (SCI)**
- 1.4 COMPUTATIONAL ENGINEERING**
- 1.5 PROJECT DESCRIPTION**
 - 1.5.1 TOTAL FACILITY SUMMARY
 - 1.5.2 PROJECT COST SUMMARY
 - 1.5.3 SPACE TYPE SUMMARY
 - 1.5.4 PROJECT SCHEDULE
 - 1.5.5 PROJECT PROCUREMENT
- 1.6 BACKFILL OF MERRILL ENGINEERING BUILDING**

1.0 EXECUTIVE SUMMARY

1.1 UNIVERSITY OF UTAH COLLEGE OF ENGINEERING MISSION STATEMENT

Mission

The mission of the College of Engineering is three-fold. The faculty, staff and students join together to:

1. Provide modern, relevant engineering education for undergraduates and graduates that is nationally recognized for its excellence.
2. Conduct scholarly research involving both graduate and undergraduate students and make the results available to the industrial sector, government agencies and the general public via presentations, publications, software, patents, technical advice and graduates.
3. Contribute directly to the economy of the State of Utah by providing a resource base for local industry and by assisting with the commercialization of new technologies to improve the quality of life in Utah, the nation and the world.

College Statistics

The first modern, four-year Engineering degree at the University of Utah was introduced in 1895. Joseph F. Merrill was the first school principal and the Merrill Engineering Building was later named in his honor. According to University records, Richard Lyman was recruited from Brigham Young Academy to teach the technical engineering curriculum. Lyman organized the first Department of Engineering in 1896.

During the past +/- 100 years, the College has graduated over 12,000 engineers. Many engineers have gone on to achieve international recognition in industry, manufacturing, research, education, law, medicine, and numerous other professions.

Currently, the enrollment in Engineering is nearly 2,300 undergraduate and 600 graduate students, with 116 tenure track faculty members, and administers research projects totaling nearly 34 million dollars annually. The College of Engineering at the University of Utah includes seven academic departments, an institute and several centers.

- Bioengineering
- Chemical and Fuels Engineering
- Civil and Environmental Engineering
- Electrical and Computer Engineering
- Materials Science and Engineering
- Mechanical Engineering
- School of Computing

Vision of the Warnock Engineering Building

Engineering education at the University of Utah is accomplished through a balance of teaching and research, through the application of fundamental science to real-world problems—through the combination of bright students interacting with gifted faculty. The focus for the future will be to further enrich the undergraduate program with experiences designed to promote leadership, to foster an environment in which innovative research on society's complex problems can be addressed, and to forge lasting partnerships with the College's alumni and corporate partners.

The Warnock Engineering Building will be the physical and intellectual hub for emerging areas like computing and biomedical engineering. It will house “computer-friendly” learning centers and study areas, and provide space for modern teaching centers which will be adaptable to changing instructional technology.

The vision for the new Engineering Building is a 100,000 square foot, state-of-the-art research and teaching building located within the engineering complex of the University of Utah Campus. The building will house modern instructional classrooms, teaching labs, advanced computational facilities, student- centered areas and meeting rooms. It is the intent for the building’s environment to encourage close, interdisciplinary collaboration and easy exchange of ideas among students and faculty.

As the College continues to fulfill its mission to the State, it envisions an expanded engineering campus with several new buildings, representing the central role of Engineering in a Research I University.

Principles and Values

The following principles and values have been identified by the Steering Committee for the Warnock Engineering Building:

The Warnock Engineering Building...

... will have *modern*, high tech teaching space.

... will have *student space* for group/individual/study/community spaces.

...will be a *showcase* for Engineering, utilizing the foyer/entrance for donor recognition. The new Building should be the formal entrance to the College of Engineering.

...will have a *computational flavor*—housing faculty offices/research labs.

...will embrace the concept of *sustainable design* and sustainable design practices.

...will be the new location for the *Dean’s Office*.

1.2 SUMMARY OF EXISTING FACILITIES

The College of Engineering is currently utilizing space in nine buildings on campus, one building in downtown Salt Lake City, and two buildings in Research Park. Eight of these buildings are located on the northern edge of campus, and one building is located within the University's Health Sciences Center located on the east side of campus. These buildings include:

Building 019	Intermountain Network and Scientific Computation Center (INSCC)
Building 056	Energy and Mineral Research Office Building (EMRO)
Building 057	HEDCO Building
Building 060	Engineering Sciences Building
Building 061	Engineering and Mineral Research Lab (EMRL)
Building 063	Engineering and Mines Classroom Building (EMCB)
Building 064	Merrill Engineering Building (MEB)
Building 372	Kennecott Building
Building 570	Biomedical Polymers Research Building

The University of Utah Warnock Engineering Building will be located south and east of the existing Merrill Engineering Building on Main Campus. The site designated for the Warnock Engineering Building was at first rather broad; consisting of the parking lot to the east of EMCB and the parking lot across the street and further east. A Site Planning Workshop was facilitated during the Programming Phase to review site options, and identify advantages and disadvantages for the location of the building. A summary of these Options is provided in Section 6 Appendix. The selected Option has been included in this Section 2.

1.3 SCIENTIFIC COMPUTING AND IMAGING INSTITUTE (SCI)

The Scientific Computing and Imaging Institute has established itself as a leader in engineering and research in the areas of scientific computing, scientific visualization, and imaging. The overarching research goal of the SCI Institute is to create new scientific computing techniques, tools, and systems with which to solve problems affecting various aspects of human life. The focus of the Institute has been largely in medicine, but we have also solved computational and imaging problems in other application areas such as geophysics, chemical engineering, molecular dynamics, aerospace fluid mechanics, combustion, and atmospheric dispersion.

The SCI Institute has four major long-term goals. The first goal is to perform technical research into the computational and numerical methods required for scientific computing. The second goal is to explore the paradigm of integrated problem solving environments as an efficient approach for scientists in many disciplines to solve their own computational problems. The third goal is to research new techniques for scientific visualization, and to develop visual analysis tools that help increase the understanding of complex scientific data. The final goal represents our desire, as researchers, to use scientific computing to understand our own particular disciplines, for example, numerical mathematics, biophysics, electrocardiography, bioelectric fields in the brain, and medical imaging.

The Scientific Computing and Imaging Institute currently houses two research centers: the NIH Center for Bioelectric Field Modeling, Simulation, and Visualization and the DOE Advanced Visualization Technology Center. In addition, the Scientific Computing and Imaging Institute is formally associated with several other National research efforts: the NSF Partners in Advanced Computational Infrastructure (NCSA PACI), two DOE SciDAC Centers, and the DOE Center for the Simulation of Accidental Fires and Explosions.

1.4 COMPUTATIONAL ENGINEERING

The focus of the building is Computational Engineering. There will be space for approximately 10 additional faculty members whose research is computationally based. The programmed space includes additional space for: 6-8 graduate students, a post doc/conference room for each faculty member and a shared conference room and administrative space. Machine room space will be dedicated to this group. This space is designed for interdisciplinary interaction of the Computational faculty with no preconceived notion of the actual occupants at this time of Programming.

1.5 PROJECT DESCRIPTION

1.5.1 TOTAL FACILITY SUMMARY

The Warnock Engineering Building will be a new facility consisting of 100,000 gross square feet (GSF). The building will consist primarily of classrooms, student spaces, Dean's Office, office space related to student functions, SCI and Computational Engineering. This Program encompasses the full 100,000 GSF, and in the process of site analysis, has identified future growth with an additional building sites.

The project is approximately 66,000 net square feet (NSF), and 100,000 gross square feet (GSF) at an efficiency ratio of 65%. Discussions with the Steering Committee and University have defined the building to be 3-4 stories above grade with a portion of the new building located "over" the existing EMCB Building.

Summary of Spaces

Classrooms	14,200 SF
Student Space	8,210,SF
Engineering Educational Exhibit	3,400 SF
Dean's Office	5,540 SF
SCI	18,310 SF
Computational Engineering	14,040 SF
Building Support	2,300 SF
Net Total	66,000 SF
Total Gross SF	101,538 SF

Summary of Offices

300 SF

Dean's Office	
Dean's Office	(1)
SCI	
Director	(1)

230 SF

Dean's Office	
Associate Dean/Academic Affairs	(1)
Associate Dean/Research	(1)
Director of Exterior Relations and Development	(1)
Assistant Dean of Accounting	(1)
Director of Networking	(1)
Computing Services	(1) Shared by 2
SCI	
Associate Director	(3)

200 SF

SCI	
Faculty Offices	(10)
Computational Engineering (Generic)	
Faculty Offices	(10)

150 SF

Student Spaces	
Center for Engineering Leadership Director	(1)
Dean's Office	
Dean's Executive Assistant	(1)
Administrative Officer	(1)
Senior Accountant	(1)
Accounting Supervisor	(1)
Building Facilities Manager	(1)
Development Assistant Directors	(2)
Development Administrative Assistant	(1)
Development Major Gifts Officer	(1)
Outreach Program Manager	(1)
Outreach Academic Advisor	(1)
Outreach Program Coordinator	(1)
Outreach Minority Program	(1)
SCI	
PhD/Post Doc	(10)

120 SF

Student Spaces

Engineering Scholars Program Offices	(2)
Center for Engineering Leadership Admin. Asst.	(1)

Dean's Office

Clerical Support/Reception	(2)
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SCI

Financial Officer	(1)
Administrators	(4)
Reception	(1)
Secretary	(1)
Software/Programmers	(10)
Systems Staff	(4)
Media Staff	(4)

Computational Engineering

General Administration/Support Staff	(2)
Support Office/Post Doc/PhD	(10)

Summary of Meeting/Conference Rooms

Student Spaces

Center for Engineering Leadership Library Resource Learning Center/ Writing Center/ Conference Room	(1) 20 Person Conference Room
Breakout/Meeting Rooms	(12) 6 Person Meeting Rooms

Engineering Educational Exhibit

Board Room	(1) 30 Person Board Room
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Dean's Office

Conference Room	(1) 12 Person Conference Room
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SCI

Conference Room	(1) 50 Person Conference Room
Meeting Room-Large	(1) 24 Person Meeting Room
Meeting Room-Small	(2) 6 Person Meeting Room

Computational Engineering (Generic Space)

Conference Room	(1) 12 Person Conference Room
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Classrooms/Seminar Rooms

- (2) 100 Person Classrooms
- (2) 80 Person Classrooms
- (6) 20 Person Seminar Rooms

1.5.2 PROJECT COST SUMMARY

This opinion of probable cost has been prepared to reflect the anticipated cost of the new Warnock Engineering Building at the University of Utah.

This document is based on the Programmatic Information, including measurement and pricing of quantities wherever information has been provided. Unit rates have been obtained from historical records, along with discussions with contractors. The unit rates provided include labor, material and equipment that reflect current bid costs in the Salt Lake City area. All subcontractor unit rates include the subcontractor's overhead and profit unless otherwise stated.

Exclusions

The following items are excluded:

- Land acquisition costs
- Financing charges and expenses
- Site related environmental abatement measures
- Project phasing costs
- Limited/restricted working hours

Items affecting Opinion of Probable Cost

The following items may change the estimated construction costs, and are not limited to:

- Unforeseen or hidden site utility conditions and capacities
- Modifications to the scope of work represented by this opinion of probable costs
- Phasing of the construction
- Non-competitive bid situations

Assumptions

The following assumptions have been made:

- Construction takes place during normal working hours.
- The CM/GC and subcontractors will have sufficient/temporary site staging and site storage within or adjacent to the vicinity of construction.

Escalation

This opinion of probable costs reflects current costs. Escalation has been included to represent an anticipated start of construction by Fall 2004.

Contingencies

This opinion of probable costs reflects a design contingency of 10%, to allow for items not included in the drawings and Program documentation undefined at this stage.

This opinion of probable costs has been based on a competitive open bid situation with a minimum of 3 bidders for all items of subcontracted work. Please note that Parametrix has no control over the costs of labor, materials, equipment, contractor's methods, or the current competitive bidding market. This represents Parametrix's best judgment as a professional construction consultant. Parametrix does not guarantee the proposals, bids or the overall construction cost will not vary from opinions of probable costs provided within this Program Document.

Project Budget

The construction budget for this project is \$21,000,000, as established by the University of Utah and the College of Engineering. This budget has been set as the maximum funds that can be expended for construction for this project.

Budget Total Construction Costs	\$21,000,000
Budget Total for Soft Costs	\$ 7,000,000
TOTAL PROJECT BUDGET	\$28,000,000

1.5.3 SPACE TYPE SUMMARY

Classrooms

The Classroom function of the Warnock Engineering Building is one of the primary focus for the building. The Program includes:

- (2) 100-Person High Technology Instructional Classrooms
- (2) 80-Person High Technology Instructional Classrooms
- (6) 20-Person Seminar/Classrooms

The quality and layout of the classroom spaces will vary, including:

- Problem based learning, conference format
- Tiered rows, moveable seats at continuous tables, lecture format

Space has also been provided for discussion areas outside of each classroom so that conversations with lecturer can continue after class.

Student Spaces

Office and Office Support Spaces are provided for several student-based programs, including the Engineering Scholars Program and Center for Engineering Leadership Program. Along with offices, space is provided for Meeting Rooms, Library Resource Room, and specialty equipment storage.

Student support spaces are also provided, including:

- (12) 6-Person Group Study Rooms
- (2) 25-Person Quiet Study Space
- (2) 25-Person Social Student Space
- (1) Food Service Area with Seating

4 quiet lounges located throughout the building with computer workstations, soft seating, mailboxes, and work tables will allow more private areas for students to gather.

Common social lounge will provide area for foosball, pin-pong and TV. Lockers and showers will also be provided in the building.

Engineering Educational Exhibit

The Engineering Educational Exhibit Space will serve as the main entry to the building, providing a display area for alumni achievements and donor recognition.

There will also be a **College of Engineering Board Room**, with a small support kitchen/prep area in the building. This meeting room will be large enough to accommodate 30 people in a board room setting.

Dean's Office

The Dean's Office will consist of:

- (18) Offices
- (1) 12-Person Conference Room
- (1) Break Room

Workroom, Files, Supply and Storage Rooms

SCI

The main focus for the Warnock Engineering Building is Computational Engineering. The Scientific Computer Imaging Institute will relocate from Merrill Engineering Building into the Warnock Engineering Building. Support spaces for SCI include:

- (1) Visual SuperComputer Center
- (1) SCI Bio Engineering Lab
- (1) Virtual Reality Lab/Experimental Virtual Super Computer Center
- (4) Meeting Rooms of various sizes, ranging from (1) 50-person, (1) 24-person and (2) 6-person.
- (3) Executive Offices
- (6) Administration Offices
- (18) Full Time Staff
- (10) Faculty Offices
- (10) PhD/Post Doc Offices
- (4) 10-Person Graduate Student Labs
- (1) Machine Room

Computational Engineering

In support of the main focus of the Warnock Engineering Building being computational, there will be numerous computational labs and support spaces in the Program. These spaces are currently "unassigned", and will be used by either SCI to accommodate future growth, or by graduate level computational related research programs, to be determined as the design and construction of the building progresses. Space includes:

- (10) Faculty Offices
- (10) Support/PhD/Post Doc Offices
- (10) 8-Person Graduate Student Labs
- (1) Specialty Lab
- (1) 12-Person Conference Room
- (1) Machine Room
- (2) Support Staff Offices

1.5.4 PROJECT SCHEDULE

The overall Project Schedule is as follows:

Selection of Design Architect/Architect of Record	February 2004
Selection of CM/GC	March 2004
Design Complete	December 2004
Start of Construction	January 2005
Construction Substantial Completion	June 2006
Occupancy	August 2006

1.5.5 PROJECT PROCUREMENT

The University of Utah and DFCM have determined to use CMGC for construction of the Warnock Engineering Building. Both the selection of the Design Team and the CM/GC will be by DFCM Value Based Procurement.

1.6 BACKFILL OF VACATED SPACES

Merrill Engineering Building

With SCI moving out of the Merrill Engineering Building, approximately 10,000 net square feet of space will be available on the third floor. The majority of this space has been recently renovated, and is in very good condition.

Possible Users:

- Bio Engineering in north east corner
- School of Computing additional research space in central areas

Kennecott Building

With the Dean's Office moving out of the Kennecott Building, approximately 5,000 net square feet of space will be available on the second floor.

Possible Users:

- Mechanical Engineering is already located on the first floor of the Kennecott Building. This Department could possibly utilize the offices vacated by the Dean's Office on the second floor.

Research Group

The following plans show the existing 3rd Floor of Merrill Engineering and 2nd Floor of Kennecott Building, indicating spaces to be vacated.

Attachment: Site Plan

